

What is claimed is:

1. A cut filler composition comprising tobacco and at least one additive capable of acting as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide, wherein the additive is in the form of nanoparticles.

2. The cut filler composition of claim 1, wherein the additive is capable of acting as both an oxidant for the conversion of carbon monoxide to carbon dioxide and as a catalyst for the conversion of carbon monoxide to carbon dioxide.

3. The cut filler composition of claim 1, wherein the additive is selected from the group consisting of metal oxides, doped metal oxides, and mixtures thereof.

4. The cut filler composition of claim 3, wherein the additive is selected from the group consisting of Fe_2O_3 , CuO , TiO_2 , CeO_2 , Ce_2O_3 , Al_2O_3 , Y_2O_3 doped with zirconium, Mn_2O_3 doped with palladium, and mixtures thereof.

5. The cut filler composition of claim 4, wherein the additive is Fe_2O_3 in an amount effective to convert at least 50% of the carbon monoxide to carbon dioxide.

6. The cut filler composition of claim 1, wherein the additive has an average particle size less than about 500 nm.

7. The cut filler composition of claim 1, wherein the additive has an average particle size less than about 100 nm.

8. The cut filler composition of claim 1, wherein the additive has an average particle size less than about 50 nm.

9. The cut filler composition of claim 1, wherein the additive has an average particle size less than about 5 nm.

10. The cut filler composition of claim 1, wherein the additive used in step (i) has a surface area from about 20 m²/g to about 400 m²/g.

11. The cut filler composition of claim 10, wherein the additive used in step (i) has a surface area from about 200 m²/g to about 300 m²/g.

12. A cigarette comprising a tobacco rod, wherein the tobacco rod comprises cut filler having at least one additive capable of acting as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide, wherein the additive is in the form of nanoparticles.

13. The cigarette of claim 12, wherein the additive is capable of acting as both an oxidant for the conversion of carbon monoxide to carbon dioxide and as a catalyst for the conversion of carbon monoxide to carbon dioxide.

14. The cigarette of claim 12, wherein the additive is selected from the group consisting of metal oxides, doped metal oxides, and mixtures thereof.

15. The cigarette of claim 14, wherein the additive is selected from the group consisting of Fe₂O₃, CuO, TiO₂, CeO₂, Ce₂O₃, Al₂O₃, Y₂O₃ doped with zirconium, Mn₂O₃ doped with palladium, and mixtures thereof.

16. The cigarette of claim 15, wherein the additive is Fe₂O₃ in an amount effective to convert at least 50% of the carbon monoxide to carbon dioxide.

17. The cigarette of claim 12, wherein the additive has an average particle size less than about 500 nm.

18. The cigarette of claim 12, wherein the additive has an average particle size less than about 100 nm.

19. The cigarette of claim 12, wherein the additive has an average particle size less than about 50 nm.

20. The cigarette of claim 12, wherein the additive has an average particle size less than about 5 nm.

21. The cigarette of claim 12, wherein the additive has a surface area from about 20 m²/g to about 400 m²/g.

22. The cigarette of claim 21, wherein the additive has a surface area from about 200 m²/g to about 300 m²/g.

23. The cigarette of claim 12, wherein the cigarette comprises from about 5 mg of the additive per cigarette to about 100 mg of the additive per cigarette.

24. The cigarette of claim 23, wherein the cigarette comprises from about 40 mg of the additive per cigarette to about 50 mg of the additive per cigarette.

25. A method of making a cigarette, comprising

(i) adding an additive to a cut filler, wherein the additive is capable of acting as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide, wherein the additive is in the form of nanoparticles;

(ii) providing the cut filler comprising the additive to a cigarette making machine to form a tobacco rod; and

(iii) placing a paper wrapper around the tobacco rod to form the cigarette.

26. The method of claim 25, wherein the additive is capable of acting as both an oxidant for the conversion of carbon monoxide to carbon dioxide and as a catalyst for the conversion of carbon monoxide to carbon dioxide.

27. The method of claim 25, wherein the additive used in step (i) has an average particle size less than about 500 nm.

28. The method of claim 25, wherein the additive used in step (i) has an average particle size less than about 100 nm.

29. The method of claim 25, wherein the additive used in step (i) has an average particle size less than about 50 nm.

30. The method of claim 25, wherein the additive used in step (i) has an average particle size less than about 5 nm.

31. The method of claim 25, wherein the cigarette produced comprises from about 5 mg of the additive per cigarette to about 100 mg of the additive per cigarette.

32. The method of claim 31, wherein the cigarette produced comprises from about 40 mg of the additive per cigarette to about 50 mg of the additive per cigarette.

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~~32~~. The method of claim 25, wherein the additive used in step (i) is selected from the group consisting of metal oxides, doped metal oxides, and mixtures thereof.

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~~33~~. The method of claim 32, wherein the additive used in step (i) is selected from the group consisting of Fe_2O_3 , CuO , TiO_2 , CeO_2 , Ce_2O_3 , Al_2O_3 , Y_2O_3 doped with zirconium, Mn_2O_3 doped with palladium, and mixtures thereof.

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34. The method of claim 33, wherein the additive used in step (i) is Fe_2O_3 in an amount effective to convert at least 50% of the carbon monoxide to carbon dioxide.

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35. The method of claim 25, wherein the additive used in step (i) has a surface area from about $20 \text{ m}^2/\text{g}$ to about $400 \text{ m}^2/\text{g}$.

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36. The method of claim 35, wherein the additive used in step (i) has a surface area from about $200 \text{ m}^2/\text{g}$ to about $300 \text{ m}^2/\text{g}$.

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37. The method of smoking the cigarette of claim 12, comprising lighting the cigarette to form smoke and inhaling the smoke, wherein during the smoking of the cigarette, the additive acts as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide.

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